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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,501	08/01/2003	Wilmer Lee Briggs	ORRCPO100US	4393

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EXAMINER
DOUGLAS, JOHN CHRISTOPHER

ART UNIT	PAPER NUMBER
1764	

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05/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/632,501

Applicant(s)

BRIGGS, WILMER LEE

Examiner

John C. Douglas

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/16/2007 has been entered.

Response to Amendment

Examiner acknowledges the response filed on 3/16/2007 containing amendments to the claims and remarks. Examiner acknowledges claims 1, 10, 25, 29, 32 and 42-44 as amended. The amendment to claim 1 overcomes the 102(b) rejection.

Response to Arguments

Applicant's arguments, see remarks, filed 3/16/2007, with respect to the rejection(s) of claim(s) 1-44 under 103(a), with respect to Mallan, have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Bullock (US 6653517).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
1. Claims 1-3, 6-9, 10, 15-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Bullock (US 6653517).
 2. With regard to claims 1-3 and 6-9, Garrett discloses heating contaminated oil to a temperature in the range of 100 to 125 degrees F (38-52 degrees C) and then contacting the oil with Fuller's earth to produce treated oil (see Garrett, column 2, lines 40-57).

Garrett does not disclose where the hydrocarbon-containing material is obtained from thermal decomposition of a plurality of thermoplastic polymeric materials and animal offal or plant residuals and where the source-derived contaminant is an organic chloride compound.

Art Unit: 1764

However, Bullock discloses hydrocarbon-based materials including waste plastics, dead animals, and agricultural products that are heated to reduce sulfur and chloride contaminations (see Bullock, column 4, lines 3-39 and column 5, lines 38-46).

Bullock discloses where this operation has the capability to reduce environmental pollution in order to enable producers to meet requirements for environmental quality (see Bullock, column 24, lines 32-410).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett to include processing hydrocarbon-based materials including waste plastics, dead animals, and agricultural products with heat to reduce sulfur and chloride contaminations in order to enable producers to meet requirements for environmental quality.

In addition, the omission of an element and its function is not obvious if the function of the element is not desired (see MPEP 2144.04 II. A.). Therefore, the limitation that the process does not include additional steps would be prima facie obvious.

3. With regard to claims 4 and 5, Bullock discloses where the removed hydrocarbon oil may be blended with a fuel oil (see Bullock, column 5, lines 38-46).
4. With regard to claim 10, Garrett discloses everything in claim 1, but Garrett does not disclose thermally decomposing polymeric material to obtain a first hydrocarbon-containing material comprising one or more polymer-derived contaminant.

Art Unit: 1764

However, Bullock discloses hydrocarbon-based materials including plastics that are heated to reduce sulfur and chloride contaminations (see Bullock, column 4, lines 3-39 and column 5, lines 38-46).

Bullock discloses where this operation has the capability to reduce environmental pollution in order to enable producers to meet requirements for environmental quality (see Bullock, column 24, lines 32-410).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett to include a hydrocarbon-containing material derived from plastics that contain chloride contaminants in order to enable producers to meet requirements for environmental quality.

In addition, the omission of an element and its function is not obvious if the function of the element is not desired (see MPEP 2144.04 II. A.). Therefore, the limitation that the process does not include additional steps would be *prima facie* obvious.

5. With regard to claims 15-17, Bullock discloses where the heating is conducted at about 500 to about 2000 degrees F (260 – 1093 C) (see Bullock, column 1, lines 41-50).

6. With regard to claim 18, Garrett discloses where the filtered oil is subject to further upgrading processes (see Garrett, column 2, lines 57-68).

7. With respect to claims 19-22, Bullock discloses where the product is used in fuel oils and jet fuels (see Bullock, column 5, lines 38-46).

Art Unit: 1764

8. With respect to claims 23 and 24, Bullock discloses where the non-recoverable gases from the processes are used as an energy source in the process (see Bullock, column 8, lines 18-20).

9. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Bullock as applied to claim 10 above, and further in view of Ciora (US 6024880). Garrett in view of Bullock disclose everything in claim 10, but do not disclose regenerating the clay material at a temperature from about 400 to about 815 degrees C and contacting the regenerated clay with the contaminant containing hydrocarbon.

However, Ciora discloses regenerating a clay adsorbent at a temperature from 300 to 800 degrees C and contacting the regenerated clay with the contaminant-containing hydrocarbon (see Ciora, column 4, lines 11-14, column 16, lines 5-7, and column 3, lines 63-65).

Ciora discloses that regeneration of the adsorbent eliminates disposal cost and reduces the operating cost (see column 4, lines 11-14).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett in view of Bullock to include regenerating a clay adsorbent at a temperature from 300 to 800 degrees C and contacting the regenerated clay with the contaminant containing hydrocarbon in order to eliminate disposal costs and reduce the operating cost.

10. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Bullock and further in view of Ciora. Garrett in view of Bullock and further in view of Ciora disclose everything in claim 13 (see paragraph 16), but do not disclose

Art Unit: 1764

repeating the process. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to repeat the process because a process is rarely performed only once. In addition, in *In re Dilnot*, 319 F.2d 188 (CCPA 1963) the court held that a continuous operation is obvious over a batch process. A continuous operation is technically a constant repetition of a batch process. Thus, repeating a batch process would be obvious.

11. Claims 25 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Bullock and Johnson (US 3930988). Garrett discloses everything in claim 1, but Garrett does not disclose thermally decomposing polymeric material to obtain a first hydrocarbon-containing material comprising one or more polymer-derived contaminant and Garrett does not disclose that the treated oil is for use a lubricant in a motor vehicle. Also, Garrett does not disclose blending the product with fuel oil to meet a specification for the desired use.

However, Bullock discloses where the product is used in fuel oils and jet fuels (see Bullock, column 5, lines 38-46). Also, Bullock discloses hydrocarbon-based materials including plastics that are heated to reduce sulfur and chloride contaminations (see Bullock, column 4, lines 3-39 and column 5, lines 38-46).

Bullock discloses where this operation has the capability to reduce environmental pollution in order to enable producers to meet requirements for environmental quality (see Bullock, column 24, lines 32-410).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett to include a hydrocarbon-

containing material derived from plastics that contain chloride contaminants in order to enable producers to meet requirements for environmental quality.

Also, Johnson (US 3930988) discloses waste oil that is treated and reused as motor oil (see Johnson, column 1, lines 40-51).

Johnson teaches that waste oil can be converted to motor oil as an alternative to disposing of the waste oil (see Johnson, column 1, lines 40-51).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett to include waste oil that is treated and reused as motor oil in order to avoid disposing of the waste oil.

12. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Bullock and Johnson as applied to claim 25 above, and further in view of Ciora (US 6024880). Garrett in view of Bullock and Johnson disclose everything in claim 25, but do not disclose regenerating the clay material at a temperature from about 400 to about 815 degrees C and contacting the regenerated clay with the contaminant-containing hydrocarbon.

However, Ciora discloses regenerating a clay adsorbent at a temperature from 300 to 800 degrees C and contacting the regenerated clay with the contaminant-containing hydrocarbon (see Ciora, column 4, lines 11-14, column 16, lines 5-7, and column 3, lines 63-65).

Ciora discloses that regeneration of the adsorbent eliminates disposal cost and reduces the operating cost (see column 4, lines 11-14).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett in view of Bullock and Johnson to include regenerating a clay adsorbent at a temperature from 300 to 800 degrees C and contacting the regenerated clay with the contaminant containing hydrocarbon in order to eliminate disposal costs and reduce the operating cost.

13. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Bullock and Johnson. Garrett in view of Bullock and Johnson disclose everything in claim 25 (see paragraph 18), but do not disclose repeating the process. However, in *In re Dilnot*, 319 F.2d 188 (CCPA 1963) the court held that a continuous operation is obvious over a batch process. Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention to perform the process as a continuous process.

14. Claims 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Bullock and Johnson (US 3930988). Garrett discloses everything in claim 1, but Garrett does not disclose thermally decomposing polymeric material to obtain a first hydrocarbon-containing material comprising one or more polymer-derived contaminant and Garrett does not disclose that the treated oil is for use a lubricant in a motor vehicle. Also, Garrett does not disclose blending the product with fuel oil to meet a specification for the desired use.

However, Bullock discloses where the product is used in fuel oils and jet fuels (see Bullock, column 5, lines 38-46). Also, Bullock discloses hydrocarbon-based

Art Unit: 1764

materials including plastics that are heated to reduce sulfur and chloride contaminations (see Bullock, column 4, lines 3-39 and column 5, lines 38-46).

Bullock discloses where this operation has the capability to reduce environmental pollution in order to enable producers to meet requirements for environmental quality (see Bullock, column 24, lines 32-410).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett to include a hydrocarbon-containing material derived from plastics that contain chloride contaminants in order to enable producers to meet requirements for environmental quality.

15. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Bullock as applied to claim 10 above, and further in view of Ciora (US 6024880). Garrett in view of Bullock disclose everything in claim 10, but do not disclose regenerating the clay material at a temperature from about 400 to about 815 degrees C and contacting the regenerated clay with the contaminant containing hydrocarbon.

However, Ciora discloses regenerating a clay adsorbent at a temperature from 300 to 800 degrees C and contacting the regenerated clay with the contaminant-containing hydrocarbon (see Ciora, column 4, lines 11-14, column 16, lines 5-7, and column 3, lines 63-65).

Ciora discloses that regeneration of the adsorbent eliminates disposal cost and reduces the operating cost (see column 4, lines 11-14).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett in view of Bullock to include

Art Unit: 1764

regenerating a clay adsorbent at a temperature from 300 to 800 degrees C and contacting the regenerated clay with the contaminant containing hydrocarbon in order to eliminate disposal costs and reduce the operating cost.

16. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Bullock and Johnson. Garrett in view of Bullock and Johnson disclose everything in claim 25 (see paragraph 18), but do not disclose repeating the process. However, in *In re Dilnot*, 319 F.2d 188 (CCPA 1963) the court held that a continuous operation is obvious over a batch process. Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention to perform the process as a continuous process.

17. Claims 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Bullock and Johnson (US 3930988). Garrett discloses everything in claim 1, but Garrett does not disclose thermally decomposing polymeric material to obtain a first hydrocarbon-containing material comprising one or more polymer-derived contaminant and Garrett does not disclose that the treated oil is for use a lubricant in a motor vehicle. Also, Garrett does not disclose blending the product with fuel oil to meet a specification for the desired use.

However, Bullock discloses where the product is used in fuel oils and jet fuels (see Bullock, column 5, lines 38-46). Also, Bullock discloses hydrocarbon-based materials including plastics that are heated to reduce sulfur and chloride contaminations (see Bullock, column 4, lines 3-39 and column 5, lines 38-46). And see *In re Burhans*,

Art Unit: 1764

154 F.2d 690 (CCPA 1946), which held that the selection of any order of process steps is *prima face* obvious).

Bullock discloses where this operation has the capability to reduce environmental pollution in order to enable producers to meet requirements for environmental quality (see Bullock, column 24, lines 32-410).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett to include a hydrocarbon-containing material derived from plastics that contain chloride contaminants in order to enable producers to meet requirements for environmental quality.

18. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Bullock as applied to claim 10 above, and further in view of Ciora (US 6024880). Garrett in view of Bullock disclose everything in claim 10, but do not disclose regenerating the clay material at a temperature from about 400 to about 815 degrees C and contacting the regenerated clay with the contaminant containing hydrocarbon.

However, Ciora discloses regenerating a clay adsorbent at a temperature from 300 to 800 degrees C and contacting the regenerated clay with the contaminant-containing hydrocarbon (see Ciora, column 4, lines 11-14, column 16, lines 5-7, and column 3, lines 63-65).

Ciora discloses that regeneration of the adsorbent eliminates disposal cost and reduces the operating cost (see column 4, lines 11-14).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Garrett in view of Bullock to include

Art Unit: 1764

regenerating a clay adsorbent at a temperature from 300 to 800 degrees C and contacting the regenerated clay with the contaminant containing hydrocarbon in order to eliminate disposal costs and reduce the operating cost.

19. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett in view of Bullock and Johnson. Garrett in view of Bullock and Johnson disclose everything in claim 25 (see paragraph 18), but do not disclose repeating the process. However, in *In re Dilnot*, 319 F.2d 188 (CCPA 1963) the court held that a continuous operation is obvious over a batch process. Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention to perform the process as a continuous process.

20. With respect to claims 35-39, Bullock discloses where fuel oil is obtained (see Bullock, column 5, lines 38-46) and Garrett discloses that the oil obtained after the clay contacting step is not subjected to fractionation nor cracking (see Garrett, column 2, line 40 – column 3, line 14).

21. With respect to claims 40-44, Ciora discloses packing a column with clay and feeding a hydrocarbon into the column at a pressure of 2 bar (see Ciora, example 12).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Tullio (US 2002/0173682).

Art Unit: 1764


Any inquiry concerning this communication or earlier communications from the examiner should be directed to John C. Douglas whose telephone number is 571-272-1087. The examiner can normally be reached on 7:30 A.M. to 4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn A. Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JCD

5/21/2007



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